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Hydraulic Fracturing and the Legal Onslaught

Preparing for EPA Actions, New Statutory Requirements, and the Growing Litigation Threat

TUESDAY, SEPTEMBER 27, 2011

1pm Eastern | 12pm Central | 11am Mountain | 10am Pacific

Today's faculty features:

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Hydraulic Fracturing and the Legal Onslaught

Trends In Agency Enforcement Actions and Government Regulation

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> Strafford Publications September 27, 2011

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Federal Statutes

- A. Energy Policy Act of 2005, Pub.L. No. 109-58 § 322
- B. Safe Drinking Water Act, 42 USC § 1431
- C. Clean Water Act, 33 U.S.C. § 1319
- D. Fracturing Responsibility and Awareness of Chemicals Act of 2011 (In Committee)

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Energy Policy Act of 2005

- Enacted in response to LEAF I (11th Cir. 1997)
 (hydraulic fracturing constitutes underground injection under SDWA) and LEAF II (11th Cir. 2001) (wells used for injection of fracking fluids are Class II wells under UIC and must be regulated)
- Expressly excluded hydraulic fracturing activities from definition of underground injection, and the possibility of regulation under SDWA
- Exclusion does not include hydraulic fracturing operations using diesel fuels

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U.S. EPA Enforcement Strategy

- A. Independent Petroleum Assoc. of America, et al. v.
 U.S. EPA (March 2011 D.C. Cir.)
 (Regulation of wells hydraulically fractured using diesel fuel under SDWA)
- B. Range Resources v. U.S. EPA (April 2011 5th Cir.) (U.S. EPA's use of Emergency Orders under SDWA)
- C. Sackett v. U.S. EPA (9th Cir.) cert. granted June 2011 (Pre-enforcement review of U.S. EPA Compliance Orders under CWA)

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Safe Drinking Water Act (U.S. EPA Enforcement Strategy)

- 1. Underground Injection Control
 - 33 States Primary implementation authority of UIC Program
 - 7 States Share implementation authority of UIC Program with Federal Agencies
 - 10 States U.S. EPA directly implements UIC Program
- 2. Emergency Administrative Orders, 42 USC § 1431
 - Contaminant may present an imminent and substantial endangerment
 - "As may be necessary to protect the health of persons...
 including the provision of alternative water supplies..."
 42 USC § 1431(a)(1)

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Safe Drinking Water Act (U.S. EPA Enforcement Strategy)

- 3. Authority to Issue Emergency Administrative Orders in Primary Authority States
 - · State refuses to act
 - State acts and U.S. EPA disputes the action taken

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Clean Water Act (U.S. EPA Enforcement Strategy)

- Not a hydraulic fracturing case
- 2. CWA precludes pre-enforcement review of U.S. EPA Administrative Compliance Orders
- 3. "Whenever on the basis of any information ... the Administrator finds that any person is in violation of section ..., he shall issue an order requiring [compliance] 33 USC § 1319(a)(3)
- 4. No opportunity for administrative challenge

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State Regulation

1. Disclosure Statutes

- Full or Modified
- Trade Secret Protections
- Occupational Safety and Health Administration MSDS Requirements
- 2. Well Construction Statutes
 - Most oil and gas producing states have them
 - Not specific to hydraulic fracturing
- 3. Land Use Regulations

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Local Regulation

Municipal Ordinances

- Morgantown, West Virginia
- Preemption

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Guidance, Policy and Congressional Activity

- U.S. EPA has selected seven case study sites
 - Two prospective sites
 - Haynesville Shale DeSoto Parish, LA
 - Marcellus Shale Washington County, PA
 - Five retrospective sites
 - o Bakken Shale Killdeer and Dunn Counties, ND
 - Barnett Shale Wise and Denton Counties, TX
 - o Marcellus Shale Bradford and Susquehanna Counties, PA
 - Marcellus Shale Washington County, PA
 - Raton Basin Los Animas County, CO

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Guidance, Policy and Congressional Activity

- Fracturing Responsibility and Awareness of Chemicals Act (March 15, 2011)
 - House Bill HR 1084
 - Senate Bill S 587
 - Would repeal Energy Policy Act exemption for hydraulic fracturing

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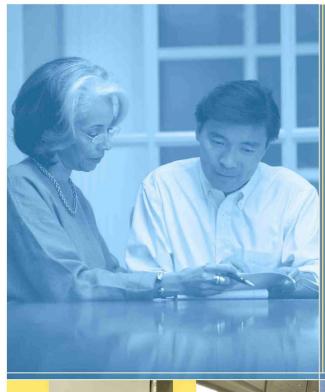
Guidance, Policy and Congressional Activity

- 3. Department of Energy, Committee on Science, Space and Technology—Shale Gas Subcommittee released Draft Report addressing risk of groundwater contamination from hydraulic fracturing (August 2011)
- 4. U.S. EPA issued permitting guidance for use of diesel fuels in hydraulic fracturing

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Fracking Litigation: Current Cases and Future Trends

Jennifer Quinn-Barabanov Partner – Products Liability, Pharmaceutical and Mass Torts





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September, 2011

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- class actions
- toxic torts
- mass torts
- product liability

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Case Statistics

- Total known private tort suits alleging injuries from explosion, emissions or contamination: 38 (as of 8/16/11)
 - Does not include worker claims
 - Federal court: 30
 - Some may be subject to remand motions
 - State court: 8
 - PA (12) , TX (8), LA (3), WV (4), NY (1), C0
 (2), AR (8)
 - Class actions: 10

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"Do you know what I'm craving? A little ... perspective.
That's it. I'd like some fresh, clear, well-seasoned
perspective. Can you suggest a good wine to go with
that"?





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Theoretical Categories of Cases

- Water Contamination
 - Groundwater
 - Methane migration
 - Fracking fluids
 - Proxies
 - Surface water
- Air Emissions
- Earthquake
- Explosion
- Worker Personal Injury

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Categories of Cases Actually Filed

- Water Contamination
 - Groundwater
 - Methane migration
 - Fracking fluids
 - Proxies (secondary)
 - Surface water
- Air Emissions
- Earthquake
- Explosion
- Worker Personal Injury

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Unique to fracking?

- Water Contamination
 - Groundwater
 - Methane migration
 - Fracking fluids (yes, but not driving suits)
 - Proxies (secondary)
 - Surface water
- Air Emissions
- Earthquake
- Explosion
- Worker Personal Injury

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Question?

- Are these:
 - Fracking cases?
 - Oil & gas extraction cases?
- Different in
 - Kind
 - Degree
 - Number
- Perfect storm that will trigger "onslaught"?

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Fracking Conduct Challenged

- Well construction
 - Improper design
 - Negligent execution (particularly re: well casing)
- Spills
- Containment (e.g., holding ponds)
- Disposal (injection wells)
- Explosions (which may also cause spills)
- Ordinary operations/emissions
- Disclosures (fracking fluid constituents)

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Legal Theories

- Common law
 - Public Nuisance
 - Private Nuisance
 - Trespass
 - Negligence
 - Strict Liability
 - Medical Monitoring
 - Fear of cancer/future harm
 - Punitive damages
 - Injunctive relief

- Statutory (secondary, if at all)
 - Safe DrinkingWater Act
 - Clean Water Act
 - Clean Air Act
 - CERCLA
 - State analogs

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Groundwater Cases - Methane Migration

- One of the most common types claims
 - Private well owner/residents of affected property
 - No known cases involving public water sources
 - Typically result from defective well casing
 - May potentially also be caused by improperly abandoned oil/gas wells in area

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Groundwater Cases - Methane Migration

Example:

- Dimock, PA. Fiorentino v. Cabot Oil & Gas,
 Co., No. 3:09-cv-02284 (M.D. Pa.)
 - Brought by 63 homeowners
 - Cabot agreed to pay \$4.1M to neighboring owners of 14 homes and to provide gas mitigation for their private wells as part of a consent order with PA DEP
 - Alleged water contamination
 - Spills, explosions

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Groundwater Cases - Methane Migration

Causation:

- Plaintiffs likely to rely heavily on Duke Study -Osborne et. al. (2011)
- Findings:
 - Significant increase in dissolved methane concentration in drinking wells near active gas drilling/fracturing
 - Suggestive of potential methane migration
 - Appeared to be thermogenic methane
- Critiques:
 - Failed to account for thermogenic methane sources closer to surface
 - Thermogenic methane found in almost all wells studied
 - No baseline data

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Groundwater Cases - Methane Migration

- Causation/Injury
 - Source: Fracking vs. naturally occurring
 - Isotopic methane analysis
 - thermogenic vs. biogenic
 - Injury
 - Health effects of methane ingestion (if any) not established
 - Diminished property value arguments will be similar to MTBE (diminished water quality, fear of future harm, stigma, inability to sell property, adequacy of connection to public water as a remedy)

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Groundwater Contamination – Fracking Fluids

- Fracking Fluid Constituents
 - Include 29 chemicals
 - Known or possible human carcinogens
 - Regulated under the Safe Drinking Water Act
 - Listed as hazardous pollutants under the Clean Air Act
 - www.fracfocus.com

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Groundwater Contamination – Fracking Fluid Proxies

- Fracking Fluid Proxies
 - Total Dissolved Solids ("TDS")
 - Total Suspended Solids ("TSS")
 - Sulfates
 - Barium
 - Bromides
 - Heavy Metals
 - Naturally Occurring Radioactive Material ("NORM")

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Groundwater Contamination – Fracking Fluids

- Is there data to support this kind of claim?
 - Duke study found no evidence that fluid constituents migrate into groundwater
 - Unconfirmed reports
 - Possible that defective casing could lead to isolated incidents of contamination?
 - Possible that spills could cause contamination?
- Many complaints allege water contamination, but do not identify contaminants
- This aspect of the litigation is the greatest unknown

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Groundwater Contamination – Fracking Fluids

- Causation/Injury
 - Which chemicals or proxies provide basis of claim?
 - What (if) any health effects associated with those chemicals or proxies?
 - Dose
 - Source: Fracking vs. naturally occurring
 - Other effects? (e.g., impacts on water quality)

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Air Emissions

- Another common type of claim
- Air quality issues have been reported, even in very rural areas where fracking is being conducted
- May be attributable to multiple sources controlled/operated by different defendants
 - Drilling/fracking
 - Pipelines
 - □ Storage, compressors, etc.

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Air Emissions

Examples:

- Town of Dish v. Atmos Energy Corp., No. 2011-40097-362 (Denton Cty. Tex)
 - Alleged contamination of town's air with hydrocarbons and dangerous substances, odors, excessive noise and light
 - Claim to have test data indicating presence of BTEX (benzene, ethylbenzene, toluene and xylene)
 - o Focus on benzene a "known" human carcinogen
 - Texas DEQ air monitoring station
 - Alleged source: compressor stations, hydrators, pipeline near residential area
 - Damages: lost revenue because of diminished property values, trespass on town property

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Air Emissions

- Evenson v. Antero Resources Corp., No. 2011 CV 05118 (Denver Cty., CO)
 - Class action brought by property owners of Battlement Mesa, CO
 - Some alleged acute health effects (burning eyes & throats)
 - Administrative action re: regulatory violations
 - Predominantly based on potential future injuries and conditions (water contamination, exposures, personal injuries)
 - Mentions some specific chemicals: hydrogen sulfide, hexane, nheptane, toluene, propane, isobutene, n-butane, isopentane, npentane
 - Based upon a baseline health assessment U. Colo.
 - Purpose to identify potential impacts and mitigation measures
 - BUT community subject of upcoming EPA retrospective study

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Air Emissions

- Causation/Injury
 - Which chemicals provide basis of claim?
 - Benzene, PAHs, VOCs, other?
 - What (if any) health effects associated with those chemicals?
 - Dose very difficult to prove in a community exposure air case
 - Source: Fracking vs. naturally occurring

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Earthquakes

- Focus of many cases from AR
- Increased incidence of earthquakes in parts of Arkansas & Texas
- Question whether quakes are linked to injection wells used to dispose of produced water
 - Water may facilitate earthquakes by decreasing friction

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Earthquakes

Examples:

- Frey v. BHP Billiton Petroleum, Inc., No. 4:11-cv-00475-JLH (E.D. Ark.)
- Hearn v. BHP Billiton Petroleum, No. 4:11-cv-00474(JLH)

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- Types:
 - Methane Migration Probably not
 - Groundwater & Air Emissions
 - Maybe some already filed
 - Earthquakes
 - Maybe some already filed
- Classes typically defined in terms of geography

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- State or federal forum?
 - Class Action Fairness Act ("CAFA") §1332(d)
 - Federal jurisdiction over class actions where:
 - o minimal diversity and
 - o claims worth more than \$5M
 - CAFA exceptions will likely apply
 - Home State: 1/3 2/3 class + primary defendant are residents; remand discretionary
 - Local controversy: > 2/3 class + significant defendant are residents; remand mandatory

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- Absent CAFA jurisdiction, defendants seeking a federal forum will need to establish fraudulent joinder
 - Joinder of a non-diverse defendant to defeat complete diversity
 - Issue already being litigated in several cases

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Damages

- Diminished property value
- Lost use/enjoyment of property
- Personal injury
- Medical monitoring
- Fear of future injury
- Punitive damages
- Injunctive relief cessation/alteration of operations, funds for environmental monitoring

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- Federal class actions
 - Dukes v. Wal-Mart Stores, Inc., 131 S. Ct. 2541 (2011)
 - Commonality prerequisite for all classes, including (b)(2) (mandatory) and (b)(3) (opt-out)
 - requires not just common questions, but ability to reach common answers that apply to all in class
 - Focus on common injury
 - Mandatory (b)(2) classes
 - Question whether any claims for money damages can be certified as a mandatory class under (b)(2)
 - Mandatory (b)(2) class must seek an "indivisible" injunctive remedy

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- Medical monitoring
 - mandatory (b)(2) certification dead after *Dukes*?
 - need for medical monitoring individualized determination preventing certification under (b)(2) or (b)(3)?
 - Gates v. Rohm & Haas Co., 2011 WL 3715817 (3rd Cir.) (Aug. 25, 2011) very unfavorable for plaintiffs
- Property damage
 - □ Common injury/common answer requirements −*Dukes*
- Greater emphasis on threshold levels of exposure?
- Limit the geographic scope of class, especially in air emissions cases?

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Regulatory Standards in Litigation

A. Compliance as a Defense

- Property Damage Claims
- 2. Bodily Injury Claims

B. Negligence

- 1. Regulations are Minimum Compliance Standards
- 2. Regulatory Safe Harbors Do They Exist
- 3. Do Permits Provide Protection
- 4. Is a Trace Amount Enough to Trigger Liability
- 5. Type of Duty Owed and To Whom

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Fracking Litigation: Disclosure and Causation Issues

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- Material Fact
- Duty to Disclose
- Intent to induce plaintiff to act differently than s/he would have otherwise
- Plaintiff unaware and would have acted differently had s/he known
- Plaintiff suffers damages as a result



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- Statutes or regulations requiring disclosure of materials injected and their composition. Restatement (2d) of Torts section 536
 - Content and recipient of disclosures vary
 - Some examples
 - Texas: Natural Resources Code § 91.851; proposed amendment by RR Comm'n to 16 TAC 3.80
 - Colorado: Oil & Gas Conservation Comm'n Rule 205
 - Montana: ARM 36.22.608, 36.22.1015, 36.22.1016, 36.22.1106, 36.22.1010
 - Idaho: ID ADC 20.07.02.055 (temporary rule)
 - (Proposed) Delaware River Basin Comm'n rules - 25 PA Code 901.2
 - Wyoming: APD regs of Oil and Gas Comm'n



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Fraud Claims – Possible Sources of Duty to Disclose

- Absent statute/reg, whether there is a duty to disclose materials and their composition depends upon relationship between parties
 - E.g., transaction between parties → duty
 Restatement (2d) of Torts sections 550 and 551
 - NO general duty merely because "neighbors"

 See, e.g., Avance v. Kerr-McGee Chems. LLC, 2006 WL
 3913509, *11 (E. D. Tex. Dec. 14, 2006)



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- Voluntary disclosures?
 - Possible duty if incomplete see
 Restatement (2d) of Torts section 529
 - Examples:
 - Frac Focus website at fracfocus.org
 - Company website (e.g. www.halliburton.com/public/projects/pubsdata/ Hydraulic_Fracturing/fluids_disclosure.html
 - Informal on a well-by-well or project basis







- Failure to comply with statutes or regs
 - Not disclose at all
 - Incomplete or inaccurate disclosure
- Misleading voluntary disclosure
 - Incomplete or inaccurate







- Do NOT refuse to disclose regardless of circumstance
- Include Disclaimers
 - Not being offered for purpose of inducing anyone to act or rely upon information under any circumstance
 - Encourage reader to seek further information from relevant regulatory agencies
- Disclose in manner that is not misleading
 - Ensure accuracy of information disclosed
 - Update as appropriate
 - If disclosure not complete, acknowledge expressly that it is incomplete







- Plaintiffs need to show:
 - Common contaminants
 - Exposure
 - What's pathway?
 - Mechanism of Release
 - What occurred at wellsite or downhole?
 - Effects



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- Multiple possible sources of contaminants at Issue
 - Naturally occurring
 - Used in O&G well operation
 - Used in other activities by others
 - Other O&G wells producing, abandoned wells (plugged and unplugged)
 - Injection wells
 - Underground mines
 - Water well operation and maintenance
- Exposure Issues
 - Location of O&G well and location of plaintiff (surface and subsurface)
 - Manner airborne v. well water
 - Defendant's testing (pre-and post-operation) and safeguards
 - Return and disposal of oil and gas operation fluids
- Release Issues
 - Oil and gas operations
 - Mechanical integrity of well?
 - Releases on surface or other than target formations?
 - Subsurface conditions



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NOS may include formation fluid, gases, trace elements, naturally occurring radioactive material (NORM), and organic material.

Type of NOSExample(s)

Formation fluid Brine

Natural gas (e.g., methane, ethane), carbon dioxide, hydrogen sulfide, nitrogen, helium Gases

Mercury, lead, arsenic Trace elements

NORM Radium, thorium, uranium

Organic material Organic acids, polycyclic aromatic

hydrocarbons, volatile and semi-volatile

organic compounds



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Substance

Acids

Disinfectants

Fuel

Hydrogen sulfide Bacteria

TDS/TSS

Purpose/Source

Clean well bore

Remove bacteria

Operate pump

Naturally occurring (periods of nonuse, well O&M, other)

Naturally occurring or from well completion or operation



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- Identify each substance from Defendant's activities to which Plaintiff was exposed and which the Plaintiff claims caused him or her injury;
- General causation:
 - Whether any of these substances can cause the type(s) of disease or illness that Plaintiffs claim;







- Specific causation:
 - Dose or other quantitative measurement of the concentration, timing, and duration of Plaintiff's exposure to each such substance;
 - Identification, by way of reference to a medically recognized diagnosis, of the specific disease or illness from which Plaintiff suffers;
 - That such disease or illness was in fact caused by Defendant's activities.







- Baker v. Chevron USA, Inc., 2007 WL 315346, at *1 (S.D. Ohio Jan. 30, 2007).
- McManaway v. KBR, Inc., 265 F.R.D. 384, 385 (S.D. Ind. 2009).
- Wilcox v. Homestake Mining Co., 2008 WL 4697013, at *1 (D.N.M. Oct. 23, 2008)
- Abbatiello v. Monsanto Co., 569 F. Supp. 352, 353–54 (S.D.N.Y. 2008)
- Burns v. Univ. Crop Protection Alliance, 2007 WL 2811533, at *2–3 (E.D. Ark. Sept. 25, 2007) (pesticide drift case)
- In re 1994 Exxon Chemical Plant Fire, 2005 WL 6252312, at *1–2 (M.D. La. Apr. 7, 2005)
- Acuna v. Brown & Root, Inc., 1998 WL 35283824, at *5–6 (W.D. Tex. Sept. 30, 1998), aff'd,200 F.3d 335 (5th Cir. 2000)
- Eggar v. Burlington N. R.R. Co., 1991 WL 315487 (D. Mont. Dec. 18, 1991



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- Motion to dismiss
- Discovery
- Case management orders
- Dispositive motions
- Experts
 - Daubert motions



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